



Circular Economy strategies of social enterprises in Lagos

**Summary of research findings with
recommendations for policy makers and
practitioners.**



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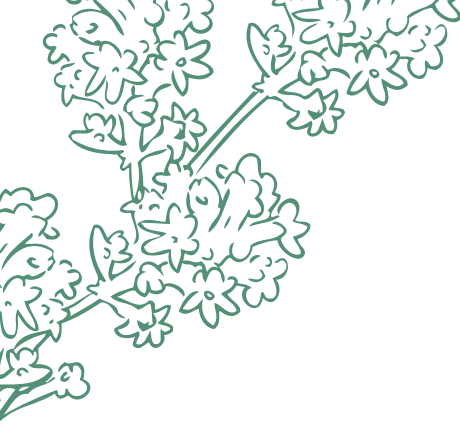
Executive summary

This report provides insights into the strategies of social enterprises carrying out waste related activities in Lagos Nigeria. Driven by core profit, social and environmental objectives, these enterprises organize their activities around waste, which is a crucial component for a circular economy in order to reduce, reuse or recycle it.

Following intensive fieldwork and data analysis processes, three aspects of their strategies were shed light on, such as what they do within the circular economy; how they organize to make profit and make impact; as well as how they are working towards challenging and changing behaviors on waste handling and disposal in communities across the state.

Findings from this research shows the widespread and deeply embedded traditional beliefs and justified norms of people regarding waste some of which needs to change for circular economy principles to become established in Lagos. This research also shows that social enterprise approaches, which involves changing existing practices and legitimizing their new ways of waste collection, aggregation, upcycling, clean-up and advocacy, are having the desired effects in disrupting the idea that people have of waste. It was therefore proposed that such organizations and their innovations need to be supported and scaled up in order to facilitate government plans to realize a circular economy and to reap its dividends economically, socially and environmentally.

This report also highlights the meaning and other benefits of the research outcomes for policy and practice, with recommendations to social enterprises and policy makers on how to address the issues identified, as part of national and global efforts to move towards a circular economy in Lagos.



Background and research focus

This study is situated within the broader sustainable development concerns, which represents global efforts geared towards realizing a sustainable world, free of poverty and with zero pollution. There are currently widespread stakeholder concerns about its goals in terms of how to achieve its objectives by the year 2030, amid persistent and deepening issues of poverty, climate change, inequality, political instability, and insecurity across the world. Various visions and frameworks have been proposed over the years to make sustainable development achievable at the organizational, national, and global levels.

One of such frameworks is the circular economy. Its central idea involves closing the loop in production, consumption and disposal systems in a manner that guarantees resource efficiency and avoid waste. More broadly in waste management discussions, the concept is understood as a way of turning waste generated into appropriate resources for further production and consumption needs. However, since the introduction and proliferation of this concept, more research work on its principles and potentials have focused more on Western and Asian contexts with limited studies or data on Africa. While there has been a lot written generally on waste management and recycling, especially about the activities of informal collectors, few have looked at such activities through the circular economy lens in such contexts. More concerning is the limited research work on the role formal private actors are also playing in the resource cycling space, making it difficult to assess their contributions to a circular economy in a developing country.

Africa is expected to be one of the most populated continents by 2050, with an estimated increase in waste generation forecasted to reach 244million tons per year by 2025. According to this United Nations report, the inherent economic potential of such waste is largely untapped, with African urban trash estimated at \$8billion, while only 4% of it is currently recycled, resulting in about a meagre \$318million in revenue generated for the continent from waste. Effective waste collection and recycling is still a challenge for most African countries, which is having devastating effects on their environments and causing significant social health issues. Nigeria is among the countries projected to experience massive population growth over the next few decades, with an expected equivalent rise in waste generation. This is already being experienced in states such as Lagos, where rapid urbanization and rising middle class with disposable incomes are contributing to the amount of waste generated daily in the state. With dwindling waste budgets and lack of appropriate infrastructure, collecting and recycling such waste is challenging, which results in economic loses for the state, blocked drains, littered streets and polluted lagoons and beaches.

Aside these structural issues also lie deeply embedded cultural beliefs and norms that are characteristic of African contexts and significant for sustainable development. For example, experts found that widespread ignorance and traditional beliefs are behind most of the nagging issues and persistent inefficiencies in communities across Nigeria, warranting necessary actions to change people's mindsets and behaviors to promote certain sustainability ideals.



The circular economy requires changes from linear economic models that lead to waste generation and disposal to a circular model, where waste is treated as a resource that can be exploited. This includes societal and individual behavior changes in consumption practices, as well as, in what people do with their waste. Studies that help in understanding how such a resource cycling approach, with the economic, social, and environmental value it promises to generate, can be made possible in an ethnically diverse context such as Nigeria is lacking, and therefore, unhelpful in understanding the type of behavior changes that are necessary and how to drive it.

Additionally, the increasing interest and promotion of the concept by governments and other private and developmental actors globally, as a way to grow the economy, create new jobs and clean-up the environment, also makes this study timely to address current knowledge gaps on its potentials in Nigeria. Therefore, this research set out to explore the circular economy concept in Lagos, particularly focusing on formal private organizations carrying out waste-related activities in the state. The intention is to shed light on the realities of organizations establishing principles such as reduce, reuse, and recycle, as well as the strategies they are employing. The organizations of interest were 'social enterprises' because of their design to pursue not only economic purposes but also social and environmental sustainability goals.

In the next section, I will briefly highlight some specific reasons for focusing on Lagos and present the research questions of interest as it concerns the circular economy and social enterprise strategies to establish its principles in the state.



Why Lagos?

Lagos state was selected as the focus for this research for many reasons, few of which are as follows:

- The state is the economic heart of Nigeria and is the most populous city in Africa.
- It handles over 80 percent of the nation's imports and have an estimated population of over 21million.
- Majority of the residents are in the low-income bracket, and they generate large quantities of waste- 12000 tons generated in 2014, with an estimated 40% of it collected for disposal, while the rest ends up in open dumpsites or the environment.
- There has been a rise in social enterprises in response to this waste and other challenges in the state.
- State government has indicated interest in the circular economy framework as a way to build back better from the adverse effects of Covid-19.
- The effective management of the city's waste is still an area of tension among relevant stakeholders e.g., government vs PSPs or government vs informal waste pickers, creating complexity in organizing and governing the establishment of the circular economy that requires collaboration and behavior change across various interest groups.

These points made Lagos state a suitable context in Nigeria to explore the circular economy idea, providing the opportunity to study how to create and capture value for all stakeholders in a manner that deals with the multiple issues of poverty, pollution and inequality. To focus this research, three questions were set, which are as follows:

1.How do social enterprises in Lagos conceptualize the circular economy?

This is to understand which of the principles of the circular economy is/are being established by social enterprises in Lagos, and what are the factors enabling or driving it.

2.How do social enterprises combine social, economic, and environmental aims to have an impact on the circular economy in Lagos?

This is to explore how to the circular economy idea can be organized to meet the goals of sustainable development.

3.What is/are the institutional work social enterprises do to establish circular economy principles in Lagos?

This is to study the strategies that social enterprises are using to change behaviors and establish circular principles in the state.

The rest of this report will therefore detail the research outcomes from investigating these questions and draw out some implications/recommendations for relevant stakeholders involved in this research.

Findings



Five main strategies were found among social enterprises establishing the circular economy in Lagos and these are briefly described below:

Collection

This involves the collecting solid wastes such as different types of unwanted or discarded plastics, cartons, bottles, water sachets, papers, vehicle tyre, fabrics, aluminum cans and tins. Most common of these are the PET bottles and car tyres. The collection is done by going door-to-door to pick-up bagged recyclables from households, corporate organizations, and communities, as well as, through drop offs at collection hubs or centers. This strategy is underpinned by cash payment at the point of exchange or by an incentive-based system that involves the exchange of recyclable solid waste for number points, which has an associated value in terms of household items or money.

**Circular economy
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Aggregation

This entails the accumulation of recyclables in a particular spot till it reaches a suitable volume for use (in upcycling) or sale to recyclers





This is a complementary approach to the collection strategy earlier described and serves as an essential next step after picking up recyclables. A crucial part of this strategy involves separating collected recyclables into their distinctive parts e.g., PET bottle from its lid and wrapped label, through a process of waste sorting. Other types of recyclables also collected e.g., papers, cardboards, aluminum containers etc., are stored separately to avoid any form of co-mingling. Some social enterprises use a machine to compress sorted recyclables in order to make it more suitable for transport and for manufacturing uses as a ready-made raw material, while others aggregate waste on demand and use it in making beautiful products, which is described next.

Upcycling

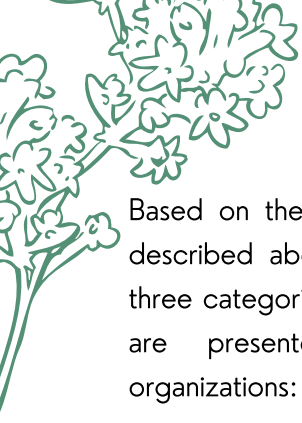
This approach involves the remaking or repurposing of solid waste materials into new items or for new uses. It is underlined by the circular economy principle of repurposing that explains the use of discarded products or its parts in a new product with a different function. Social enterprises establishing this principle were mainly involved in converting tyres to furniture pieces as their core activity. They utilize various types of tyres e.g., cars, trucks, tricycles, and other post use materials such as fabrics, buttons, plastic spoons, wine cups, upholstery foams and glue to make different types of furniture as well as home decorations ranging from single-seater to three-seater sofas, wall clocks, wall decorations, earrings, hairbands, handbags etc. Waste materials used are first sanitized before transforming them in order to make the final product safe for home/office use and touch.

Clean-up

This involves organizing internally and collaborating with other similar enterprises, corporate bodies, and government agencies to clean and beautify one public space or community at a time. The purpose is to raise awareness about environmental pollution issues, as well as, about social enterprises' recycling programs, locations, and incentive packages. In cleaning-up, social enterprises go with tools such as rakes, gloves, re-usable bags, litter pickers, banners, and branded uniforms. They pick all types of waste and separate such waste, with the recyclables in one bag and non-recyclables in another. Non-recyclable collected waste are usually handed over to state designated truckers, while the recyclables are either utilized by the social enterprise for upcycling purposes or handed over to other organizations that aggregates and processes such waste for sale.

Advocacy

This involves raising awareness on the need for a cleaner environment and proper waste disposal habits. Such awareness is raised through activities such as training students in schools, women and young ones in communities, as well as corporate organizational staff on waste management and recycling best practices. Founders of the social enterprises also speak at public events, particularly around issues on waste management and recycling in the state, through which they appeal to people and the government about the plight of people and the environment as well as how it can be salvaged through proper waste disposal and recycling practices. Aside advocating through several various media channels e.g., social media, local and international newspaper or local radio and TV shows, they also advocate through an association known as the Recyclers Association of Nigeria (RAN), where they act as a unified voice to engage the government on recycling issues across the state.



Based on the priorities placed on the five activities described above across the nine social enterprises, three categories of social enterprises emerged, which are presented below with their associated organizations:

Categories of circular economy social enterprises in Lagos

Volume-drivers

Social enterprises with core collection and aggregation strategies, while cleaning up and advocating for a better environment on the periphery. Cases Red, Blue, Yellow, Brown, and Pink fall in this category.

Core-transformers

Social enterprises with a core upcycling strategy while collecting, aggregating, and advocating on the periphery. Cases Violet and Orange fall in this category.

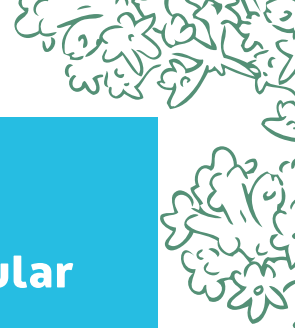
Clean-advocates

Social enterprises with core clean-up and advocacy strategies, while collecting, aggregating, and upcycling on the periphery. Cases Gold and Magenta fall in this category.

The table below further shows the prioritization of the five activities across the case studies that led to the categorization detailed above.

CASES	STRATEGIES				
	Collection	Aggregating	Upcycling	Clean-ups	Advocacy
Red	✓✓	✓✓	✗	✓	✓
Blue	✓✓	✓✓	✗	✓	✓
Yellow	✓✓	✓✓	✗	✓	✓
Brown	✓✓	✓✓	✗	✓	✓
Pink	✓✓	✓✓	✗	✓	✓
Violet	✓	✓	✓✓	✗	✓
Orange	✓	✓	✓✓	✗	✓
Gold	✓	✓	✓	✓✓	✓✓
Magenta	✓	✓	✓	✓✓	✓✓

Key: ✓✓ - Core strategy ✓ - Peripheral strategy ✗ - Not available



To further understand why these were the approaches social enterprises adopted in establishing circular economy principles, this study unpacked the drivers of such strategies. The findings showed that social enterprises saw commercial, social, and environmental challenges-turned-opportunities to advance circular principles, as explained below:

Drivers of circular practices

Commercial opportunities

- There was an increasing demand for recyclables from manufacturing organizations.
- There was an opportunity to earn extra income through trade after people showed interest in upcycled products, aside the trading of plastics and other solid waste that has been previously normalized by informal waste pickers.
- Lack of appropriate waste infrastructure to collect recyclable waste means social enterprises can create such and charge for such collection services e.g., from companies.
- The harsh operating environment means social enterprises have to be business savvy to generate income from their activities.

Social opportunities

- The effect of waste on people e.g., communities getting flooded or blocked drainage contributing to malaria infection in communities etc. was raised as a motivating factor.
- There was a negative attitude of the public towards waste work and waste workers that needed addressing, with most people referring to it as a dirty job and in a demeaning way.
- The need to address behaviors caused by existing waste system that normalized the co-mingling of waste, as well as the cleaning-up of the environment only on last Saturdays of the month e.g., government-backed environmental sanitation exercises that formerly takes place in Lagos.
- The need to protect children from poor waste disposal habits.

Environmental opportunities

- There was a misconception about waste and the environment that made littering possible and widespread.
- There was a widespread lack of knowledge about waste recycling and upcycling that leads to environmental pollution.
- The impact of inappropriate waste disposal on the environment e.g., blocked drainage, polluted streets, and public spaces etc.
- The influence of western countries and narratives in recycling waste which created an opportunity and served as a source of inspiration to act for the environment in local contexts.

These factors were found to inform the objectives social enterprises set out to pursue and the means they employed to achieve them. It also concludes the answer to the first research question which aimed to explore the various ways the circular economy is being established in Lagos. The summary of this is that social enterprises are employing the strategies of waste collection, aggregation, upcycling, clean-up and advocacy to establish the principles of recycling and repurposing solid waste materials in Lagos

From the prioritization of specific strategies, three categories of the enterprises emerged and were identified in this study as volume-drivers that prioritizes collection and aggregation; core-transformers that prioritizes upcycling and clean-advocates that prioritizes clean-up and advocacy over other strategies. There were also commercial, social and environmental opportunities that shaped social enterprise approaches towards the circular economy.

This led to the second question set for this research, which is to explore how social enterprises are organizing to meet multiple objectives. Investigating this question justifies why they are social enterprises because it shows how they set out, not only to achieve commercial success, but also to centrally address social and environmental issues in the state.

Social enterprises are employing the strategies of waste collection, aggregation, upcycling, clean-up and advocacy to establish the principles of recycling and repurposing solid waste materials in Lagos.

(NB: analysis of the data from this point onward was done based on the core strategies identified in the table above (with double ticks) e.g., For volume-drivers, focus was on their collection and aggregation strategies; for core-transformers, focus was on their upcycling strategy; and for clean-advocates, focus was on their clean-up and advocacy strategies.).



As mentioned earlier, the second question for this study explores how social enterprises organize to meet multiple goals. There are commercial, social and environmental aspects to the waste problem in Lagos, giving such enterprises multiple goals to pursue, as well as multiple ways to achieve them.

Realizing multiple organizational objectives

To take advantage of **commercial opportunities**, social enterprises focus on:

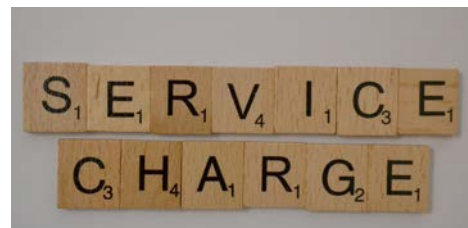
Trade

Making money from selling waste materials or waste products



Service charges

Making money from waste related services e.g., charging a fee to offer upcycling training services or charging to offer recyclable waste collection services to companies.



Efficiency

Meeting demand for recyclable waste or for upcycled products in a low-cost way



Customer service and professionalism

Having a professional outlook and valuing customer service in their relations with external stakeholders, which is typical in private commercial organizations.





To take advantage of **social opportunities**, social enterprises focus on:

Job creation

Employing workers formally and informally e.g., through word of mouth or referrals, to earn a decent livelihood



Inclusivity and capacity development

Including and developing people in various ways such as:

1

Helping low-income people benefit from waste that can be easily found in their environment, therefore involving them in market activities that rewards them in exchange for collected waste

2

Providing access to recycling services in remote community, where there has not being one, through franchising and awareness raising activities

3

Encouraging wider participation in waste work, particularly with their prioritization of women and girls in upcycling training

4

Engaging and including local artisans such as vulcanizers, carpenters etc. in the waste upcycling process, thereby contributing to their earning capacities and supporting their development

5

Ensuring that children are educated in schools on upcycling practices, while empowering people that are interested in learning about waste upcycling in communities

6

Involving volunteers to help deliver their clean-up programs and advocacy campaigns.



To take advantage of environmental opportunities, social enterprises focus on:

Reducing pollution

in two ways:

1

By removing recyclable waste from the environment and preventing it from getting to landfills



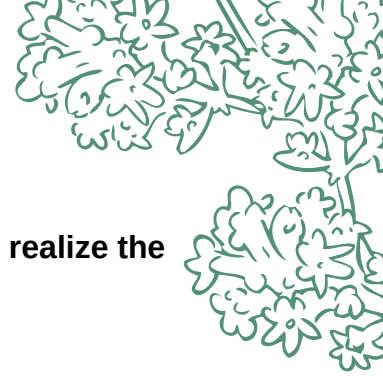
2

Increasing the awareness of environmental sustainability challenges and the need for recycling and upcycling waste

Climate action

Challenging how people perceives and handles waste, as well as, their throwaway culture, habits, and beliefs, while making them accountable for keeping their environments clean.





This study found six organizational features as crucial for organizing to realize the multiple objectives earlier highlighted, and these are:

Operations

Social enterprises achieve commercial, social and environment goals through operational activities such as collecting and processing waste; providing incentives; expanding waste collection reach into remote and poor communities; engaging adults and children in frequent clean-up activities; planting trees to clean and beautify the environment; and teaching children in schools and adults in remote communities to clean-up their environment and recycle or upcycle their waste.

Workforce practices

Through this organizational feature, social enterprises meet their multiple goals by recruiting volunteers to participate in clean-up activities and by providing appropriate kits to waste workers such as hand gloves, safety vests and boots, nose masks and waste picking tools and bags. Incentives are also introduced to boost the volumes of collected and aggregated waste for sale or export by paying waste pickers and sorters per the volumes of waste they collect and sort. Particularly, when volume-drivers hire for waste pick up and sorting roles, they mostly do so through informal means such as word of mouth and referrals in order to absorb unemployed people with little or no skills typically required in formal organizational environments. While the social enterprises train the workers with the skills required to do their job, any staff activity that affects subscriber relationship is sanctioned to demonstrate the importance of customer service and professionalism among workers in such organizations.

Inter – and extra-organizational relationships

Social enterprises meet their multiple objectives through relationships with other organizations, households or government. For example, to generate income, building relations with manufacturers is crucial to be able to sell processed waste to them. Other corporate organizations looking to advance their sustainability objectives builds relationship with social enterprises to achieve such purposes, while in turn, supports them with funds for their activities. Aside these commercial aspects, having access to more households is how social enterprises meet their social and environmental goals as it means more waste are removed from the environment and more incentives are given to poorer families or communities. Relating with the government does not only help social enterprises from a legal perspective, but it also matters for income generation from corporates and international organizations as they work only with registered companies. Government in turn are able to obtain crucial data on waste collected and recycled through such relationships, which is useful as part of the collective effort to reduce waste pollution.



Product development

Creating new products is also an avenue to pursue multiple objectives in social enterprises. This was noticeable in the activities of core-transformers that by converting discarded materials into useful home and office products to sell, they are meeting both commercial and environmental purposes. Also, by working with and paying artisans in their communities e.g., carpenters, vulcanizers etc., to create a new product from waste, they are contributing to local capacity development, hence addressing a critical social issue as well, aside from being avenues for job creation through the engagement of volunteers and interns to support their activities.

Marketing and sales

This organizational feature was also useful to meet multiple objectives in social enterprises, as this study showed that core-transformers, for example, emphasizes the environmental aspect of their products whenever they are trying to sell it for two purposes: 1). to differentiate it from conventional products while enhancing its appeal for sale, therefore meeting a key commercial objective and 2). to communicate the message that waste is value and can be put to better uses instead of littering the environment with it, hence meeting a key environmental objective.

Organizational culture

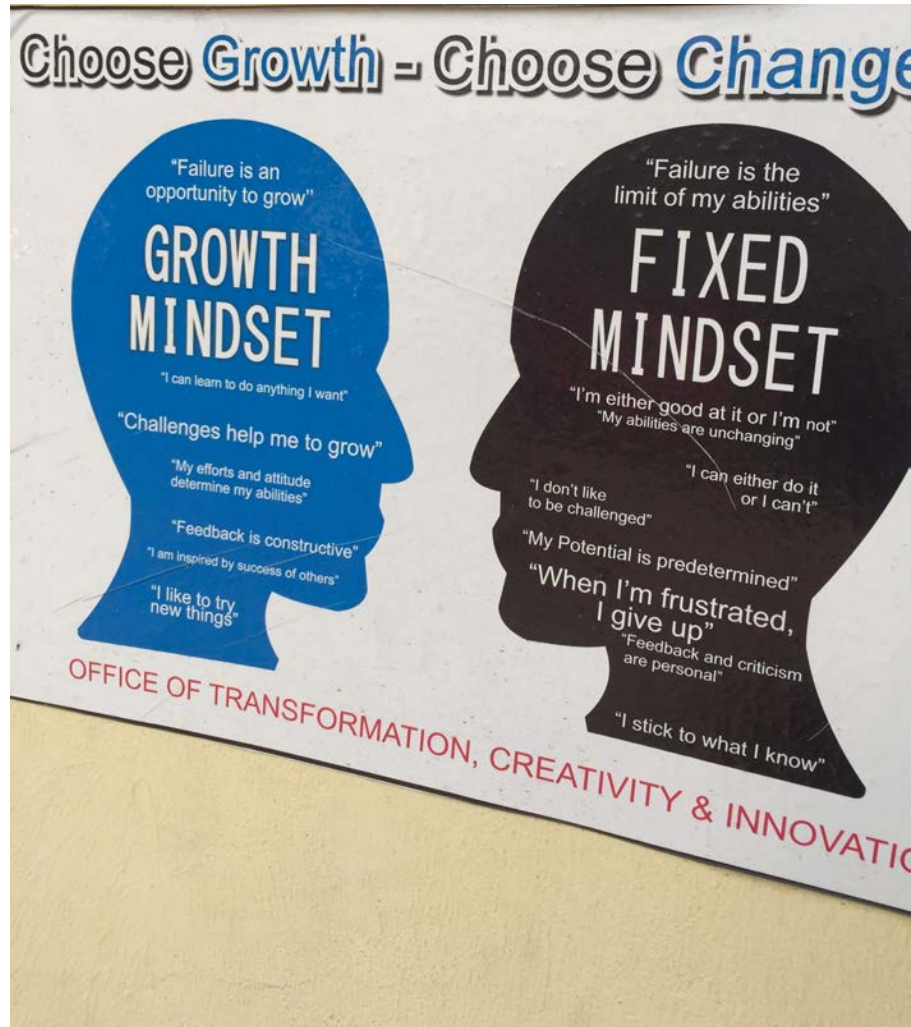
Organizational culture is also a key feature for meeting multiple goals as it was found in this study that promoting a culture of customer service and professionalism, typical in corporations, was high on the list of priorities among social enterprise workers (both administrative and operational workers). This is important for their commercial purpose because it enhances their identity as a credible organization that understands the language and ethos of the corporate world, hence enhancing their possibility to attract corporate partnerships, collaborations, or sponsorship.

Also, an ethics of care is a key aspect of meeting their social objective to employ less educated people and elderly women to collect and process waste, which was obvious in how they prioritize sorters well-being by sourcing clean materials to reduce odors from manual sorting; kitting them up with gloves, boots and mask for further protection from exposure to waste materials and sometimes, providing insurance services to those most at risk due to such exposure, covering their health care and other operational hazard costs. Due to the nature of the operational workers that they engage (e.g., elderly women), a culture of respect was obvious among workers, particularly in how they address one another and how the leaders or managers associates with the team they manage. These values being promoted meets a crucial social objective in social enterprises as being a local organization that attracts all types of people willing to work and that treats its workers well i.e., they promote inclusivity and prioritize workers' wellbeing.

Having listed these organizational features that helps show how social enterprises organize internally and externally to meet commercial, social, and environmental purposes, the next section will explain how they are changing the institutions within which they operate, which is important to meet those objectives. Institutions was used in this research to refer to the rules, norms and beliefs that shapes behavior, either that of people or organizations.

This was the essence of the third research question because being social enterprises, situated and operating in communities across the state, there are certain local traditions, laws, values, belief systems or way of life that are crucial to acknowledge, particularly in terms of how it might impact or shape organizations or their activities. It is well known in [previous research](#) that unscientific or traditional beliefs are one of the factors that leads to starting a social enterprise in Nigeria.

This was why such a question was set up to better understand not only what those institutions (rules, norms or beliefs) are, but how it influenced social enterprise approaches in establishing the circular economy principles of recycling and repurposing waste in Lagos.



Being social enterprises, situated and operating in communities across the state, there are certain local traditions, laws, values, belief systems or way of life that are crucial to acknowledge, particularly in terms of how it might impact or shape organizations or their activities.



Disrupting the idea of waste

A key highlight that emerged from this study is that: for the circular economy to be established in Lagos, the idea of 'waste as a useful resource' must be widely accepted and shared among its people. This was a common theme across all the social enterprises, where they all highlighted the need to change how people see and handle waste in Lagos as necessary to realize a circular economy. A major challenge for social enterprises is that there are various justified norms and traditional beliefs associated with people's waste practices in Lagos.

As the data analysis suggests, some of the inhabitants in Lagos believe that it is okay to litter, while expressing doubts at the possibility of waste ending up in or polluting the ocean. Some see waste littering as a normal thing to do because they believe that those responsible for cleaning the environment i.e., the government, will remove it from wherever they carelessly dispose such waste. There are those that believe in magical cleaners such as 'water deities' to push back any waste thrown into the ocean or that the ocean is self-cleaning and will purge itself clean at an appropriate time. There is also a believe among some people that waste is evil as it attracts spiritual garbage or poverty if kept or piled at home. These are some of the norms and beliefs confronting social enterprises as they set out to make the recycling and re-purposing of waste become the norm in the state.

To challenge and change these norms and belief systems about waste, social enterprises had to create mechanisms through which waste can be perceived differently. To do this, they adopted common patterns of changing existing practices and legitimizing their newly created practices, as briefly summarized below.



VOLUME-DRIVERS

Social enterprises in this category all referred to changing existing informal collection practices that have long been collecting recyclables from households, in communities and on landfills for sale. To do this, they facilitated access to household and corporate recycling by innovating existing cart collection model of the informal collectors into custom-built bikes and tricycles, as well as trucks for bulk collection purposes. While informal collectors are known to buy recyclable waste, paying instantly at the point of purchase, volume-drivers invented an incentive system that awards instant points to participants for collected recyclables. Such points are redeemable at a designated time for either cash or household items depending on the volume aggregated over a period, allowing participants the chance to increase their points to obtain a specific reward of their choice.

Volume-drivers also came up with new names to use within their field such as “waste busters”, “pickup driver” or “waste marshal” to describe those that pickup waste from households; “greenpoints”, “ecopoints” and “recyclepoints” to support their point-based incentive system; “subscribers” to describe those they collect recyclables from; and “point earning chart” to explain the point conversion processes to households, just to name a few. To support the sorting of waste from the source, some of the enterprises invested in bin bags to distribute to household for such purposes, a change from existing informal collection practices. Although, they still leverage such informal collection systems by buying waste from waste pickers to support their aggregated recyclables in order to meet demand.

However, to legitimize this new way of waste collection, volume-drivers engaged in educating people, including their workers, in skills and knowledge necessary to support their point-based system e.g., how to convert weights to points; how to clean and sort plastics; how to be professional and offer great customer services; how to use the weighing scales and the digital app for recording customer information. They also put in place incentive boundaries by setting the points for getting cash incentives higher than for getting household items. This helps maintain the new association of waste with items, as people are likely to prefer cash over items without such an approach.

Lastly, they embedded and routinized some mechanisms to continue the association of waste with value (household items or money) such as making sure every participant is registered to facilitate communication of accumulated waste points and qualified incentives; use of subscriber cards for record purposes and flyers to continue the waste-to-value education in private spaces e.g., at their homes; use of messaging technology to keep subscriber updated on their former and new point after every collection; maintain a digital database to keep records of subscriber activities should in case their card of records gets misplaced; organize a regular event where accumulated points are redeemed for cash or household items to keep the recyclable collection and the waste for value system going.

In summary, by innovating a new way to collect recyclables that diverges from existing informal collection approach, while legitimizing such new practices to make it widely acceptable and normal among workers and the wider society, volume-drivers are building a new recyclable collection infrastructure in Lagos, while contributing to the disruption of the general perception and handling of waste in the state and beyond.



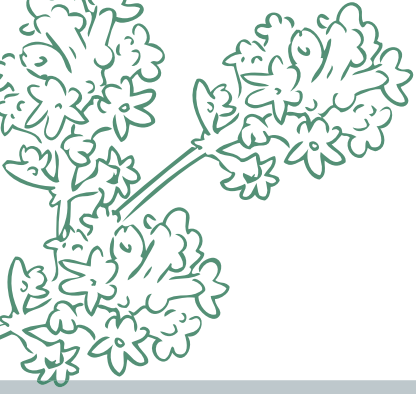
CORE-TRANSFORMERS

For social enterprises in this category, there were some subtle references made to existing woodwork practices that can be transformed using waste materials. The most common area where this was applied was in furniture making, where core-transformers saw areas where waste can and should be used in place of wood. They follow prominent waste furniture companies locally and internationally on social media to check out designs (both new and old) while brainstorming ways to make similar or alternative products using waste materials such as car tyres, discarded fabrics, plastic bottles and spoons, used cardboard papers etc. Unlike traditional furniture making, transforming waste into useful household product does not require huge upfront resources as some of those materials are readily available in their homes or environment e.g., used tyres can be collected freely in their environment and sometimes, they collect discarded fabrics from local tailors at little or no cost etc.

Most importantly, core-transformers leverage existing designs and know-hows of traditional furniture making in creating their upcycled products. This helps ease adoption and acceptance of the new products if existing designs are remodeled using waste e.g., Ottoman furniture designs or glass center tables are not new designs in the traditional furniture industry but are examples of designs remodeled with waste by core-transformers. Also, core-transformers leverage the expertise of local woodworkers who are skilled in different aspects of furniture making e.g., upholstery, carpentry etc. to create difficult parts of the furniture they intended to make, such as different shapes of chair stands or round tabletops that will fit the shape of the tyre that is being used.

It is important to highlight that in creating a new upcycled product, core-transformers experiment a lot before finishing a design to desired specification or quality. They emphasized the importance of quality in their product offerings and the importance of trying to model a design repeatedly until they get it right. Additionally, to support this newly emerging field of upcycling waste into furniture, core-transformers came up with unique names to identify their products with such as Kid Ottomans, COXE chairs, Apekee stool etc.

After creating a new product made from waste, they engage in a set of activities to legitimize the product and the new approach to furniture making using waste. One of the primary ways core-transformers legitimize what they do is through exhibitions and trade fairs, which they either organize internally or attend externally. In both types of exhibitions, social enterprises showcase their products and discuss them with interested visitors. They are also quick to post their new products on social media to display and communicate its commercial and environmental aspects and appeal to diverse audiences interested in either or both aspects. Educating people about the upcycling process is another way core-transformers make this new way of using waste widespread in Lagos. They organize school visits and dedicated training programs to train people how to upcycle waste and the commercial, social, and environmental benefits of doing so. They prioritize low-income public schools, women and children in such training programs, which they carry out with little or without a fee.



CORE-TRANSFORMERS

Additionally, gifting is another unique strategy core-transformers use to build legitimacy for upcycling products and attract resources from high status individuals and organizations, such as company and NGO executives and intergovernmental agencies. They do this to further promote upcycled products for a wider acceptance, leveraging the wider network, resources, and expertise of such leaders and organizations. Core-transformers also widely promote the use of upcycled products as gifts on special occasions, observances, or ceremonies such as valentine days, company annual lectures, end of the year celebrations etc. Doing this is normalizing the use of upcycled products as gifts, which also keeps their upcycling practices going, especially when the next event or any global observance is approaching that will drive request for, or warrant them to showcase more of, their products.

In summary, by innovating some designs and practices from the traditional furniture industry that primarily uses wood and legitimizing their newly created products made from waste materials, core-transformers are creating a new upcycling culture in Lagos, which is in turn creating new livelihoods for people (mostly women, children, and those in poor communities), and most importantly, changing the way people perceives and handles waste in the state.



CLEAN-ADVOCATES

For this category of social enterprises, similar pattern of changing existing practices was witnessed also. It was acknowledged by clean-advocates that widespread environmental clean-up exercises were not new in Lagos, where every house, street and community engage in a joint cleaning activity of their environment e.g., government-backed environmental clean-up exercises formerly takes place in the state every last Saturday of the month. Hence, such an idea is central to what clean-advocates do, which is to engage in, and encourage, the clean-up of public spaces such as beaches, streets, parks, and communities in the state on set days. However, they altered their approach to clean-ups by prioritizing fun as a key part of such an activity. Clean-advocates believes the former clean-up practices, such as the state mandated monthly exercises, were a tedious and a boring way to engage citizens in the act of actively cleaning up their environments. They believe that such government's exercises may also be passing the wrong message to people that cleaning up their surroundings is not a daily activity but a monthly one.

They, therefore, introduced fun activities such as competitions, games, music etc. to their clean-up events in order to increase participation and routinized clean-up through regular events to make it a lifestyle. They also introduced rewards for people participating in the exercise, mostly targeted at encouraging children to pick up the habit of collecting waste for recycling and re-purposing purposes. Another strategic move they made was to make use of themed spaces, which are adopted public spaces (beach and school), for their clean-up events and awareness campaigns. The strategy is part of their innovative efforts to make clean-ups look trendy and to make it an activity every person and organization can happily participate in. Their themed environments (beach or garden) are decorated with waste material, showing the upcycling possibilities of waste materials through place design. These themed spaces are branded and used as the central spot for most of their cleaning, waste collection and upcycling activities. After creating this new space and approach to clean-ups, clean-advocates engages in another similar pattern of legitimizing this new fun way of cleaning-up waste.

This they do by prioritizing education on their themed spaces by engaging children and interested companies visiting about the environmental benefits of removing waste from the environment and the commercial rewards from recycling or upcycling such waste. They use the clean and decorated spaces as a means of making visitors reflect on the dangers that waste poses to the environment and to inspire clean-up behavior in them. Aside using their themed spaces, they also storm communities with a team of uniformed staff and volunteers, plenty of cleaning tools, and sometimes, with a loud music to advocate for a clean environment and to attract people to participate in the day's clean-up activities. However, before carrying out such activities in communities, clean-advocates seek the permission and approval of the local king or chief in charge of the area, which they do by either writing a letter or visiting the palace to present their offerings. Having such approval granted by the local authority gives clean-advocates the legitimacy to carry out their clean-up activities in communities and to avoid disruptions.

Another important strategy of clean-advocates involves encouraging planting of trees for beautification purposes and sometimes to cover up dumpsites in any environment they clean.



CLEAN-ADVOCATES

Covering dumpsites by planting trees is their way of preventing further dumping of refuse in the same spot and symbolizing what a clean environment should look like. As resources are needed to support their clean-up and advocacy initiatives, clean-advocates are also strategic in how they obtain resources such as funds, cleaning tools and volunteers for their events. They reach out to companies, NGOs and international organizations asking them to support (funds or tools) clean-up exercises taking place in their neighborhood on set days. They offer in exchange for their support, a chance to brand the company on their cleaning tools over a certain period to show that the organization is supporting sustainability initiatives. They also use their social media to reach out for support and to appreciate organizations who are supporting or have supported their clean-up activities. The images and videos they post on their social media accounts are also instrumental in drawing the attention of mostly international organizations with resources to their fun ways of cleaning-up and promoting environmental hygiene in Lagos.

Clean-advocates also sometimes reach out to the government to invite them for clean-up events and possibly, support in the evacuation of non-recyclable waste with their trucks. While clean-advocates ensures a clean-up takes place at least every month, they opened their spaces daily for individuals and organizations interested in cleaning-up and collecting waste. They also organize awareness campaigns for a clean environment around global observances e.g., world environment day, world ocean day etc., which are recurrent, making it possible for them to continuously legitimize the need to clean-up for recycling or upcycling purposes, as part of their disruptive agenda to change how people perceives or handles waste.



Effects of social enterprise practices

As briefly mentioned earlier, having a formal organizational structure is important to appear legitimate to critical stakeholders in the waste industry such as the government, the private sector and intergovernmental or international organizations. Aside from the registration of their organization or enterprise with the Corporate Affairs Commission (CAC), social enterprises operating in the waste space have to also be registered with the relevant government agency (LAWMA in this case) and licensed by them to collect, transport and sell waste materials in Lagos. Such registrations are also important to attract critical resources such as funding supports and collaborations from local corporations, intergovernmental organizations, and international NGOs. It was evident in this research that this formal approach to waste recycling and re-purposing in the state, together with the changing and legitimizing strategies of social enterprises are having significant effects in two areas:

Contributing to the disruption of the idea of waste

Through volume-driver's association of waste with money or household items; core-transformer's association of waste with raw materials; and clean-advocate's association of waste with gift rewards and raw materials for production purposes, they are dissociating the moral foundations of waste by changing how individuals and organizations see and handle such materials. Highlighting some examples from the data analysis, there are now increasing interest in the waste-for-value schemes of social enterprises, and it was acknowledged that more people now see waste as a way to make money and to help people earn an income in the poorer parts of the state. Aside this, there were success stories of the number of people now engaging in upcycling waste to furniture and reproducing, in their local contexts, what they have learnt from the social enterprises involved in this research. Specifically, volume-drivers acknowledged that because of an increased awareness of the value in waste, subscribers now expect high rewards from the materials they collect and exchange with them.

Core transformers described how people sometimes dispute that their products were made from waste whenever they present them. Some express their surprise in what a discarded material can be transformed into and others show concerns for the durability of upcycled product. Clean-advocates also described how children are influencing their parents at home to collect and recycle their waste, while also bringing some of the collected waste or the upcycled products they made to the organizations' themed spaces. These examples show how social enterprises are challenging how people see and handle waste from items/objects to be discarded to that which should be valued, collected, and exchanged. However, the proliferation, and the activities, of social enterprises in Lagos are also causing another disruption as briefly described below.



Contributing to the disruption of informal collection practices

Volume-drivers' door-to-door waste pickup model, and the collective efforts or alliance of all waste-related enterprises (i.e., RAN) at disrupting the idea of waste, are also having an unintentional disruptive effect on informal collectors' practices that are reliant on waste situated on landfills. Their recyclable collection systems stop waste from getting to landfills by intercepting it at the source of generation i.e., household level, thereby cutting off informal waste picker's vital source of supply of valuable waste materials. As social enterprises scale up their activities into more communities and more people joins the formal recyclable waste trade, it has the potential to significantly impact and reduce informal waste collection practices and source of livelihood in the state.

Social enterprises also mentioned the high logistics cost of moving waste from the point of collection to the point of sale, which will make the business of trading waste unsustainable for informal collectors in the long run, particularly since they are unable to access any kinds of support from other formal organizations. This raises questions about the feasibility of formal approaches to achieve a fair and just circular economy that is truly inclusive in a developing country context, such as Lagos, where majority of economic activities are informal and are important. However, this study shows that such an impending disruption is an unintended consequence of social enterprise actions in the waste recycling space, as they are focused on achieving separate set of objectives, and sometimes relies on informal collector's structure to get volumes of waste materials for processing.



Implications for policy and practice

The circular economy is one of those approaches that has piqued the interest of governments in Africa and the world due to its potential for economic development, as well as, for social and environmental sustainability. However, this research has demonstrated that achieving a circular economy is impossible without necessary changes to the rules, norms and beliefs that has shaped the behaviors of people and organizations through the dominant take-use-dispose economic model. Therefore, regarding institutional work to facilitate the implementation of circular economy principles in Lagos and Nigeria, there are implications for policy, policy makers and practitioners.

Government/ Policymakers

The Nigerian government has already made good policy progress in terms of the implementation of the Extended Producer Responsibility Program (EPR) aimed at businesses to ensure they protect the environment and manage waste responsibly. This is, indeed, a significant step for circular economy transition in such context as there are [empirical studies](#) that have highlighted legislation as a good instrument to mount pressure on organizations to improve their environmental performance.

No matter how well enforced rules and regulation are, if people do not possess or develop the ethical fiber or behaviors to protect their environment and recycle their waste, such rules will be broken immediately as soon as the opportunity presents itself.

While the challenge of governments in Nigeria, and in most Low and middle-income countries, have been the enforcement of rules and regulations, it was evident that there have been considerable steps taken so far to engage relevant stakeholders and drive compliance with the EPR demands through sensitization and dialogues.

Although there is still more that could be done in terms of the government adopting a stricter stance on sustainable production with severe sanctions enough to discourage infractions and unethical practices. There are legal options of enforcing appropriate product labeling to reduce consumer confusion on what is recyclable and what isn't and the options of plastic tax, that can incentivize the use of recycled materials in product manufacturing thereby creating and boosting the market for recyclables, if properly implemented.



However, as the government tightens up on this coercive aspect, social enterprises and various environmental non-governmental organizations should also be empowered and supported to continue the propagation of the principles of reducing, recycling and repurposing as evidenced in this study. Through their practices, they are contributing to the management of what some experts called the “more seemingly silent activities of humans as it relies on morality, ethics and value”, particularly on issues related to the environment. No matter how well enforced rules and regulation are, if people do not possess or develop the ethical fiber or behaviors to protect their environment and recycle their waste, such rules will be broken immediately as soon as the opportunity presents itself. What is evident in this research is that social enterprises' efforts are changing the societal perception of what waste means, influencing anyone they engage with about their environment.

Another case for supporting these organizations is that some of them are similar to MRFs (materials recovery facilities) when compared to similar organizations in developed economies such as the United Kingdom (UK), because of the role they play in the waste recycling value chain in Lagos. They created a means of collecting recyclables and further engaged in processing such materials through sorting, cleaning, and bailing before selling off to re-processors and recyclers. However, these social enterprises are going the extra mile by offering incentives to households in order to motivate them to recycle their waste. Such act is usually considered the remit of government in advanced climes and not the responsibility of tax-paying private organizations. The UK government is just about to introduce the Deposit Response Scheme (DRS) to incentivize and, as a result, motivate appropriate recycling behaviors among households for plastic packaging, while such schemes are already running in other European countries such as in Germany, Norway etc. The core practices in these schemes are synonymous to what these social enterprises are already doing in Lagos, but on a smaller scale.

Therefore, supporting and scaling up such enterprises therefore becomes paramount in order to achieve the goals of the EPR and other waste related or environmental policies at the state and national levels. Such government efforts could come in terms of recognition of social enterprises and those leading change in their communities through dedicated legal forms and advocacy. Some of these enterprises can also benefit from tax relief initiatives, funding support, as well as inclusion in public procurement plans that can help them boost their incomes to be able to engage in more socially and environmentally beneficial activities. Governments at the state and national level can show support for these enterprises that are promoting circular principles through patronage, such as buying their upcycled products for public offices and events.

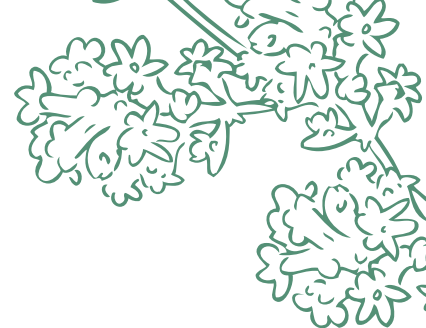
As seen in this study, social enterprises can benefit from the legitimacy a government organization can bring to their products that are made from waste by boosting its public acceptance and making people see the possibilities of waste. The government must lead the way by encouraging the purchase and use of recyclables and upcycled products from the state down to the local level. Nigerian government can also learn from practices in other countries like the UK government, who enacted the Social Value Act in which public procurers were mandated to factor in social, environmental, and economic well-being concerns, when making decisions at the pre-procurement stage, as well as consider the need to consult relevant organizations if necessary. While acknowledging the limited resources of the government that is characteristic of developing countries, these acts from the state government could see social enterprises become more supported and actively involved, not only in local economic development issues, but also in social and environmental dialogues and decision-making activities necessary to facilitate circular transition and achieve the sustainable development goals.

In terms of resources and infrastructure, if the government is serious about getting people and organizations to recycle their waste, investing in appropriate resources and infrastructure to support such activities is paramount. Access to space for accumulation and processing of recyclables is a major challenge for social enterprises, both new and old, due to associated cost and suitability of location for waste related purposes. For example, volume-drivers thrive on the volume of waste they can collect and process, which means they need large plots of land for their various collection, sorting, and processing operations. The size and low profit margins of the materials they collect, and trade means they need large plots of land that is cheap and affordable, which is a scarce resource in most parts of Lagos. Most of the social enterprises cannot afford lands for waste accumulation in some of the areas they cover or intend to. There are also other issues such as the densely populated areas in Lagos which limits the locations they can use for such a trade, as well as other environmental standards and local traditions or rules associated with purchasing lands in communities. All these also applies to core-transformers that need spaces for large scale production or to showcase their products, as well as, to the clean-advocates that need space to use in encouraging clean-ups and for their advocacy works.

The crucial role these enterprises play in eliminating waste from the environment, while also contributing economically from trade and creating a vehicle for people to earn extra incomes, warrants some form of government support in this critical area. I acknowledge that there are some vesting of lands already done by the state through LAWMA to a few social enterprises processing waste, but such support can be scaled up. These social enterprises can be collocated with state-owned landfills and warehouses, and the local government can do more in the communities they govern to help find suitable place to boost the collection and recycling of materials. The government have the capacity to establish recycling/upcycling outlets or parks where all these enterprises can be located, a cost that can be offset by the rich data they can also collate on recycling and recyclables in the state if appropriate mechanisms are put in place to capture such.

As also learnt from this study, social enterprises encounter individuals and organizations willing to recycle or upcycle their waste but are always discouraged by either the lack of color-coded waste bins, waste bags or effective transport services that will ensure such waste were evacuated on time. While the state government in Lagos has pioneered the sharing of waste bags to communities through social enterprises, the extensiveness of such initiative, in terms of ensuring every household have such bags to separate their waste, are still unclear. Logistics is also crucial to what social enterprises do and not having the luxury of good roads to transport waste in the local, and sometimes remote, communities that they operate in, has been detrimental to their growth. Considerable amounts of their earnings go towards fixing their broken-down trucks or tricycles because of bad roads. There is also the issue of having to deal with law enforcement officers on the road to justify where they are transporting waste to and why, or if they have the required federal, state, and local government licenses to operate.

As previous studies have highlighted a close link between an organization's supply chain and its economic performance, some of these social enterprises are considering cutting out logistics from their activities to minimize the cost associated with it, which might see them backtrack on their social objective of providing waste pickup jobs to those unemployed. Institutional change efforts by the government that tries to lessen these hurdles that social enterprises have to go through either to transport waste, advocate in schools or campaign in communities will go a long way in improving the experiences of these social enterprises as they advance the multiple objectives associated with the circular economy.

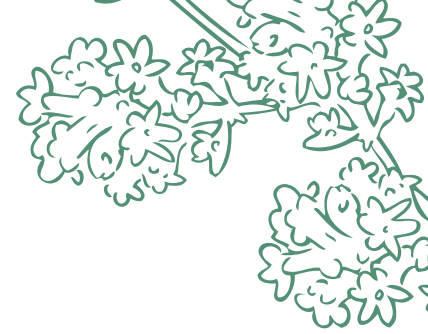


The size and low profit margins of the materials they collect, and trade means they need large plots of land that is cheap and affordable, which is a scarce resource in most parts of Lagos.

Educating law enforcers about waste collection, the processes and actors involved in getting it recycled or repurposed, might be an option. Reduction in the variety and cost of licenses to operate as a waste collector and processor is needed to create an enabling environment for these enterprises to collect, transport and sell waste materials or products. However, achieving this might require coordination among various agencies across the three tiers of government (federal, state, and local) and the political will to effect changes where necessary.

Additionally, infrastructural requirements such as roads and advance technologies calls for multisector and cross-border collaborations as Lagos make efforts towards adopting the circular economy as a way to develop differently. Local private sector support is important to generate the kinds of investments that such a transition from a linear to a circular economy will require. The incentives to guarantee all interested corporations how a circular economy transition will not affect their private economic activities, but instead enhance it, will have to be very clear. Significant financial and expert support are also needed from the international community to support infrastructural development and to share knowledge on progress, as well as lessons from establishing circular principles in their respective countries. The state government can create an enabling environment that fosters such dialogues and that encourages partnerships. Lessons can be drawn from the EPR implementation that has so far seen alliances being formed among government, plastic packaging companies, social enterprises and other stakeholders in order to devise a means of meeting its demands.

However, the present foreign companies' involvement and practices in the material recycling space in Lagos/Nigeria needs to be assessed. Government policy support is needed to increase recycling business operations locally and re-shore design and production opportunities in plastic packaging to the state. Policy and trade deals need to be geared towards ensuring stability in market prices for waste materials and protecting skilled recycling/upcycling jobs for Nigerians, aside generating revenue for the state. Capturing economic and social value in the circular economy requires localizing to some extent that will enable quality waste jobs and processing to be done in Lagos or Nigeria instead of mere collection and bailing, before selling off to foreign companies mostly from India, China and Lebanon. These companies ship high value processing jobs and materials abroad, which also affects local prices because the fluctuations in the international material market determines what they will be willing to pay social enterprises locally. Some of the changes to materials prices are made without prior notifications to social enterprises, who have expended significant resources in collecting and processing the waste materials for sale. How workers rights are protected within these foreign companies' local collection and exporting businesses are still unknown and also calls for further investigation. The summary of this is that the local market for recycled materials needs further development and the government has a regulatory role to play in making it work for all stakeholders.



Lastly, how to be fair and inclusive is the biggest task of government as they kickstart policies and plans to promote and establish circularity in the state. To minimize the disruptive effects that supporting social enterprises might have on informal collection practices, effective means of engaging informal waste pickers in the dialogues that will ensue about the circular economy need to be considered. Such actors (informal waste pickers) need to be considered as important stakeholders in establishing the circular economy in the state and they should be included at the same and higher-level discussions as social enterprises. The means to make that happen have to be devised with inclusivity in mind i.e., taking into consideration their educational backgrounds, literacy levels, technical capabilities etc. Also, they should not be included solely as beneficiaries of what the circular economy will provide but as experts who have some firsthand and years of experience in leveraging waste as a resource. Social enterprises in Lagos have examples that can be emulated in terms how they have designed their business models to co-exist with informal collectors' model, sometimes buying waste from them and helping the pickers to enhance their activities through technological inputs.

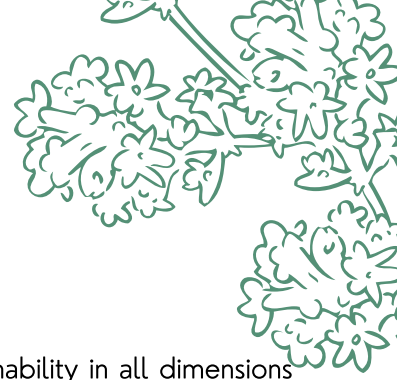
Social enterprises

Within the social enterprise community, there is a need to get more disruptive and play a role in shaping the rules and regulations governing waste recycling and re-purposing in the state, country and internationally. Their collective organizing efforts through the Recycling Association of Nigeria (RAN) is a way to go in collaborating and in advocating against rules and norms that poses a threat to their organization, but such efforts will need to be strengthened and become better structured. This is where building trust among association members and securing their commitment to the groups' ideas and ideals are crucial. The association leadership must ensure that the areas they are competing with each other in does not affect the areas they are willing to collaborate on, if they are going to be successful as an association and advocate for solid waste recycling in the country. How to ensure cross organizational representation in their activities, including social media promotion and showcasing, is also an area to deliberate upon to ensure all members are fairly represented and empowered by belonging.

Also, social enterprises need to engage more actively in emphasizing the social aspects of their activities, which has been limited to mostly job creation and empowerment, neglecting other crucial contributions such as how they are addressing the issue of gender inequity by engaging more women through their practices; promoting inclusivity in market practices by enabling the poor and marginalized to earn and meet their basic needs; bridging the class divides by appealing to both the poor and the rich with their sustainability offerings; and addressing intergenerational concerns by reaching out to, and empowering, children as agents of change. These are messages that need to be preached through their several media outlets and can be a key differentiator between organizing for the circular economy in a developing country vs a developed country context.

There are concerns within the circular economy discourse that its social dimension is not yet well understood, with a big economic (competitiveness) and environmental (critical resource depletion, pollution, and climate change) push at the core of rich countries' approaches to the circular economy e.g., UK and China. The social dimension, that is a crucial part of the sustainable development goals, provides African countries and enterprises an opportunity to attract and shape the interest of powerful stakeholders globally by showing how complex problems such as poverty, inequality and wellbeing can be addressed in a circular economy. Elaborating how your practices as social enterprise solves these critical social issues in Nigeria, aside providing jobs and tackling climate change, can attract resources (funding and support) from local and international actors with vested interest in poverty, gender, and child development issues.





The problem of logistics is a big challenge and a tricky one to resolve to achieve sustainability in all dimensions (economic, social and environmental). For example, plastics are hard to transport in pure form because of their size and lightweight features. They are quick to fill any carrier, although a truck load of such materials is worth very little in the market, especially if sold unprocessed. Focusing on the carriers a bit more shows other challenges of meeting social and environmental objectives. For example, using bicycles to collect from households is good for the environment but not for the riders pedaling long distances with large quantities of waste materials bundled behind it. The quantity of waste a motorized tricycle can carry, when compared with the fuel costs needed for operations, the low and unstable profit margins of the materials and the wage of the rider, makes it economically challenging to sustain, while burning fuel via multiple trips is equally bad for the environment.

Using large trucks and vans is good commercially because it carries more materials but also uses fuel which are well-known sources of carbon dioxide - a greenhouse gas contributing to climate change. The rider might also have to deal with multiple law enforcement agencies per trip, some of which might cost money to get by or delay material/product delivery, all leading to inefficiencies in their operations and supply chain. There are other associated issues such as fluctuating prices of materials, training costs of riders to effectively deliver services, transportation maintenance costs, limited available material buyers which affects prices, government levies to operate etc. all of which has implications for economic, social and environmental sustainability. Whichever way you look at it, getting logistics right from a triple sustainability angle is difficult and challenging in such contexts.

However, I found the approach of recyclable drop offs at designated centers as important in minimizing the effects of these challenges. It cuts out the need to visit multiple households to collect, sometimes, very little quantities of materials and the need to invest in the mechanisms to do so. Riders can be trained to become part of the processing team to avoid the social implications of cutting out waste pick-up services. While this might have an immediate effect of discouraging households from engaging in active collection, especially when drop off centers are not easily accessible due to distance or lack of transportation, combining this with behavioral change message to make them see waste differently can be the key to long term, widespread, sustainable practices. This was already the approach relied upon by a few volume-drivers who focuses more on spreading awareness of waste as a resource in communities and of their nearby collection hubs for those willing to participate.

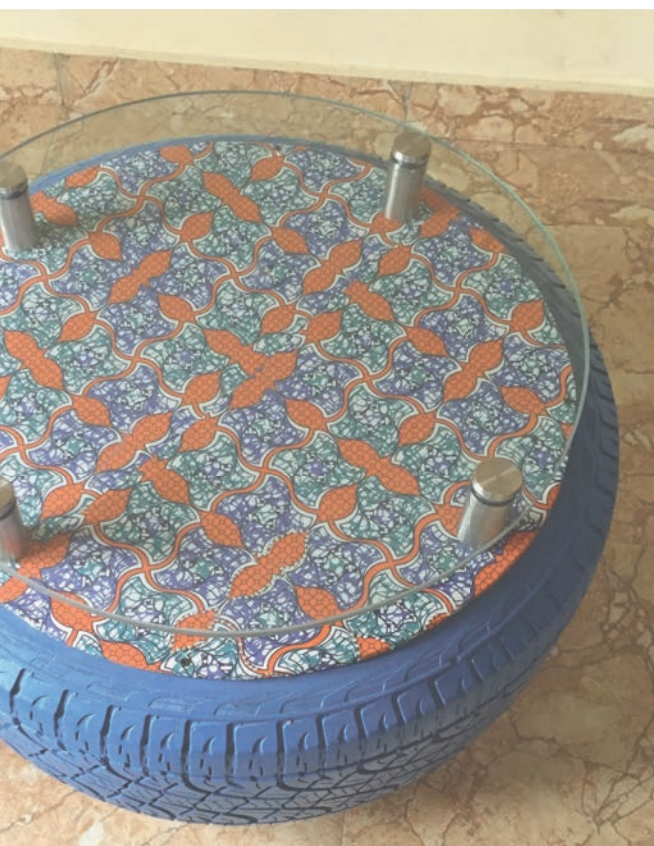
The strategies of preaching about waste for money or household items in poor communities, and about the dangers of waste to the environment in richer neighborhoods, also works because it is known that people have different motivations for engaging in such sustainable practices. Evidence gathered in this research shows that the more aware people are (of the benefits of recycling/upcycling and nearby drop off locations), the more likely they are to engage either to earn a reward or just to support the good causes being advanced by social enterprises. Scaling is also crucial in making such awareness work as it makes participating in recycling more convenient for people. There are already examples of horizontal scaling through social franchising seen mostly in the activities of some volume-drivers, where they expanded their kiosk or bin collection systems into new areas.



Some volume-drivers are also diversifying the solid waste materials they collect in order to benefit from the economies of scale that comes from it e.g., collecting not only plastics, but glass, cardboard, aluminum cans etc. From those expansions, it is evident that cross-sector collaboration is crucial in making such scale possible and continuously sustainable. The funding and expertise from the partnerships are needed until the innovation and its implementation becomes standard practice and can sustain itself either through its activities or is being covered by the government.

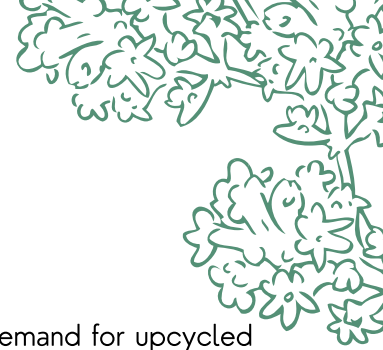
Volume-drivers might also need to diversify by identifying various manufacturers of recyclable packaging or products that they can aggregate post-use materials for and trade with. This can take place via dialogue where the social enterprise need to demonstrate how they can help them minimize production cost via the use of recyclables. More importantly, endeavor to consistently share lessons from your scaling process via your learning and networking platforms e.g., newsletter, social media and peer to peer communications. This can enable other stakeholders and international interest groups to appreciate the innovation benefits and attract further supports.

Whichever way you look at it, getting logistics right from a triple sustainability angle is difficult and challenging in such contexts.



For core-transformers and clean-advocates engaged in repurposing waste, it is clear that the uniqueness of upcycling is that people are able to see the result of what they once consider to be waste, which has a powerful influence on behavior change. It is therefore important to invest efforts in brand building and to continually stress your product story. The work you do to train people in communities, most especially women and girls, deserves local and international support for scale because of its contributions to local capacity development and in encouraging behaviors good for a circular economy.

One way to attract such support is to constantly inform customers and the public about the production processes from waste into new products. Creating and uploading production videos that tells this story on social media, as well as on your website, where visitors can watch and share, can be useful and far-reaching.



Evidence also suggests that highlighting a product's tattered past identities helps boost demand for upcycled products, because it allows customers feel special, and that they are doing something significant or contributing to a greater cause. As the market for upcycled products grows globally, those who are deliberate in telling their brand story, in a way that appeals to the needs of their local contexts and the interests of international audiences, will be able to capture a significant part of the rents such growth will bring.

Awareness of context in telling product stories is crucial here. While developed countries might more generally be drawn to information on how much waste your products prevents from leaking into the environment, your local followers might more interested in how it makes economic sense and provide value for money. If the quality can be proven and the price to buy/deliver the product is cheap, that is more likely to resonate with majority of people in Lagos and likely to drive demand. However, this is not to say there are no people interested in the environmental sustainability aspects of upcycled products in Lagos, as this research found that richer neighborhood are more likely to be attracted to such impact messages, rather than the economic possibilities of waste. Nevertheless, the message here is the same, know your context and leverage it in building your upcycled product brand by creating and promoting product stories that targets different audiences. Engaging social media expert that are able to assist in launching targeted ads, based on the type of story you want to tell, might prove useful in boosting demand for your products.

Themed spaces can have similar effects on behaviors as upcycled products. The aesthetic of using waste to decorate public spaces e.g., school gardens or beach fronts, makes people enjoy these public spaces and reflect on the possibilities of an environment free of waste. Therefore, storytelling can also be leveraged to improve footfall in such spaces, by leveraging the same principles as explained above. Tell stories about how the place was before it was transformed by you. Highlight the amount of waste materials that has gone into cleaning-up and decorating the space and what that means for the environment. Share a video or pictures of such transformation, giving people visual cues of how to transform a space with waste materials. Attract the locals by letting them know its free to visit, hence targeting them with behavior change messages and activities on waste recycling/upcycling. Economic returns can be generated to sustain the space by designing services that organizations interested in social and environmental sustainability issues can participate in. Such services have to clearly highlight benefits to such organizations, particularly for their corporate sustainability reporting efforts, such as helping them meet part of their EPR requirements or to appeal to an increasingly sustainability-conscious consumers.

The African Continental Free Trade Area is also likely to open new opportunities for cross border trading of waste materials and upcycled products that social enterprises need to research further about and leverage.

Know your context and leverage it in building your upcycled product brand by creating and promoting product stories that targets different audiences.



The discussions above are summarized into the following recommendations.

Government

- **Intensify the enforcement of the Extended Producer Responsibility (EPR) scheme to ensure compliance from all producers, big and small.**
- **Design centralized systems of incentives that relieves social enterprises of that responsibility, allowing them get on with changing behaviors rather than worry about margins.**
- Empower and support social enterprises carrying out waste related activities through dedicated legal forms with appropriate tax reliefs, advocacy, business support services, funding, and inclusion in public procurement plans.
- Look into legal instruments such as the "Social Value Act" for public procurement, which can make social enterprises become better supported and actively involved in social and environmental decision-making activities, as seen in developed economies.
- Lead the way in behavior change for sustainability by buying and using recycled/upcycled products to legitimize the use of waste for production and consumption purposes among other stakeholders.
- Investment in appropriate resources and infrastructure is crucial to enable the work of waste social enterprises in Lagos e.g., shared land, bin bags, roads etc.
- Educate law enforcement agencies in the state about waste collection and recycling, particularly focusing on the licenses/legal documents required for waste related organizations operating in Lagos, to avoid unnecessary logistics delay and associated costs.
- Urgent coordination of various agencies across the three tiers of government (federal, state, and local) is needed to reduce the number of licenses or permits required to run a waste enterprise or transport waste materials in Lagos.
- Create an enabling environment that fosters local private investments and partnerships with international organizations to facilitate the state's circular economy ambitions.
- Play active regulatory role in stabilizing material prices and protecting workers rights in the waste recycling industry. Create incentive structures that fosters local market development and that encourages more local players in the space.
- Find effective means of engaging informal waste pickers in the dialogues that will ensue about the circular economy and its establishment in Lagos to avoid further marginalizing or treating them as mere beneficiaries.



Social enterprises

- **Emphasize the broader social impact from their activities, which has been limited to mostly job creation, neglecting their contributions to fostering inclusivity and promoting capacity development in communities across the state.**
- **Engage more in awareness raising about waste and drop-off centre locations with the aim to minimize the number of households needing door-to-door pick-up services.**
- **Consistently, share lessons from your scaling activities into new areas via your learning and networking platforms e.g., newsletter, social media and peer to peer communications, to make stakeholders appreciate the benefits of your innovation and attract the necessary support to sustain it.**
- **Tell your upcycling story more and in a compelling way, in order to inform people about the production processes from waste, and to shed light on the product's tattered past identity vis-a-vis its new form.**
- **Engage in strategic marketing by tailoring your brand story to the different motivations of your target audiences, taking into consideration the obvious class divides across Lagos and their differing sustainability orientations as a result.**
- **Clean-advocates should clearly highlight how their themed-spaces can help organizations meet their corporate sustainability reporting goals, citing examples such as meeting EPR requirements on waste management or appealing to sustainability-conscious consumers.**
- **Be more active in shaping the rules and regulations governing waste recycling and repurposing in the state, country and internationally, through the platform of RAN. Active participation in group activities is essential to make this possible.**
- **Association leaders need to build trust among members and secure their commitment to the groups' ideas and ideals. They should ensure fair representation across all platforms, social media promotion and showcasing.**
- **Pay attention to and take advantage of the free trade area to exploit opportunities in cross border waste material and upcycled product trade within the continent.**



Conclusion

The state government has shown considerable interest in the circular economy concept as a way to 'build Lagos back better' after the effects of Covid-19. This research has shed light on how social enterprises, in alignment with such interest, are organizing to establish this alternative economic approach. From the analysis of their strategies, it was clear that changing rules or policies alone will be ineffective in establishing a circular economy in Lagos, as there are norms and beliefs that needs to be challenged and changed. Most importantly, this research has shown how social enterprises are rising to such gargantuan task in the waste sector, setting examples on how to shape beliefs and norms around waste in a commercially and socially sustainable manner, thereby showing how organizations can lead the way in developing Lagos state and Nigeria differently.

This research has also put forward some recommendations on how policy can better address the issues around production, consumption and waste management to facilitate the realization of a circular economy. It also highlighted how to better support social enterprises in their quest to establish circular principles, while meeting commercial, social and environmental goals. Crucial task before those with facilitative or supportive capacities is how to support and scale such social enterprise models nationally, without trampling on the rights and livelihood of those informally collecting and recycling waste.



Acknowledgements

A big thank you to all the Founders/CEOs/Managing directors and the team of the following organizations, for their active participation in this research (in alphabetical order):

- Ecoprune Africa Limited
- FABI International Foundation
- Geidenhein Recycling
- Greenhill Recycling
- Mental and Environmental Development Initiative for Children (MEDIC)
- Pearl Recycling
- Recyclepoints
- Trash2Wealth Initiative
- Wecyclers Corporation

Also, a big thank you goes out to their supporting partners/organizations/agencies and ministry that granted time to contribute to this study, which are all listed in no particular order below:

- Ministry of Environment with special thanks to Mrs Aderonke Odeneye and her team.
- Lagos State Environmental Protection Agency (LASEPA)
- Lagos State Waste Management Authority (LAWMA) with special thanks to Mrs. Jirinsola Ladipo-Okubanjo.
- National Environmental Standards & Regulations Enforcement Agency (NESREA) with special thanks to Mr Nosa Aigbedion.
- Recycling Association of Nigeria (RAN) Executives
- Barrister Mrs Rhoda Ogunye
- ACT Foundation
- Mr Kunmi Adio-Moses (Office of Transformation, Creativity & Innovation)
- Professor Olusegun Okunnu
- Mrs Bolanle Olumeko
- Mr Desmond Majekodunmi
- Mrs Bukola Ogunsanwo
- Director of Bookwarm café
- Dorcas Empowerment Program with special thanks to Pastor Joy
- Africa Cleanup Initiative (ACI)

Thanks to organizations that attended the result validation meeting on the 9th of September, 2020 and for the helpful feedback provided, which helped shape the final research outputs.

Lastly, a big thank you to the **Centre for Understanding Sustainable Prosperity (CUSP)** for supporting this project and to my supervisors at the Centre for Enterprise and Economic Development Research (CEEDR), Middlesex University London, **Professor Fergus Lyon and Dr. Andrea Werner**, for supervising this project and shaping its findings.



This report was extracted and summarized from the PhD thesis I submitted to Middlesex University London. Links to the original copy can be shared once uploaded on the University's repository, upon request. I can also be reached at the contact details below to discuss any aspect of this work.

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